

## STATEMENT OF BASIS (AI No. 156523)

for draft Louisiana Pollutant Discharge Elimination System permit No. LA0123871 to discharge to waters of the State of Louisiana.

**THE APPLICANT IS:** Utopia, Inc./Utopia Gator Farm  
 Utopia Processing  
 P.O. Box 156  
 Matthews, LA 70375

**ISSUING OFFICE:** Louisiana Department of Environmental Quality (LDEQ)  
 Office of Environmental Services  
 Post Office Box 4313  
 Baton Rouge, Louisiana 70821-4313

**PREPARED BY:** Molly McKean

**DATE PREPARED:** April 27, 2008

### 1. PERMIT STATUS

#### A. Reason For Permit Action:

First time issuance of a Louisiana Pollutant Discharge Elimination System (LPDES) permit for a 5-year term.

B. NPDES permit - NPDES permit effective date: N/A  
 NPDES permit expiration date: N/A

C. LPDES permits - LPDES permit effective date: N/A  
 LPDES permit expiration date: N/A

D. Date Application Received: April 8, 2008

### 2. FACILITY INFORMATION

#### A. FACILITY TYPE/ACTIVITY - alligator farm and processing facility

This facility raises and processes alligators. The facility estimates the following discharges to the oxidation pond: 0.06 MGD two days per week from cleaning of animal houses, 0.002 MGD from processing activities, and 100 GPD sanitary wastewater. *Discharges are treated by a 3 acre oxidation pond which rarely discharges (discharges may occur during large rainfall events).* Gators are received killed and in cold water. They are skinned and gutted. Carcasses are put into ice vats, placed back in the cooler, and shipped off the following day. Skins are de-fleshed, salted, and placed in vats for pick up. Guts are bundled for pick up by a renderer. Feet and Heads are frozen and shipped out immediately. A maximum of 4500 lbs farm-raised gators and 18,000 lbs wild gators can be processed per day. The facility averages 3000 lbs/day farm-raised and 6000 lbs/day wild gators.

#### B. FEE RATE

1. Fee Rating Facility Type: minor
2. Complexity Type: II, BPJ points to 0 based on similar permitted facilities in this industry.  
 The bulk of the wastewater is from the alligator farming operation.
3. Wastewater Type: II
4. SIC code: 0279, 2011

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C. LOCATION - 105 Gibbens Road, Raceland, Lafourche Parish  
Latitude 29° 44' 25", Longitude 90° 33' 18"

### 3. OUTFALL INFORMATION

#### Outfall 001

Discharge Type: alligator house washwater, alligator processing wastewater, sanitary wastewater and stormwater  
Treatment: oxidation pond  
Location: at the point of discharge from the oxidation pond, prior to mixing with any other waters  
Flow: 500 GPD  
Discharge Route: directly to Godchaux Drainage Canal, thence into Petite Lac Des Allemands

### 4. RECEIVING WATERS

STREAM - directly to Godchaux Drainage Canal, thence into Petite Lac des Allemands

BASIN AND SEGMENT - Barataria Basin, Segment 020301

DESIGNATED USES -

- a. primary contact recreation
- b. secondary contact recreation
- c. propagation of fish and wildlife
- d. outstanding natural resource waterbody - Per LAC 33:IX.1111, the outstanding natural resource waterbody designated use applies only to those waterbodies specifically designated in LAC 33:IX.1123, Table 3, not to tributaries or distributaries. The receiving waterbody, Godchaux Canal, is a tributary to the designated waterbody. The discharge travels approximately 7.3 miles down Godchaux Canal prior to entering Petite Lac Des Allemands.

### 5. TMDL STATUS

Subsegment 020301, Bayou Des Allemands - HWY 90 to Lake Salvador (Scenic), is listed on LDEQ's Final 2006 303(d) List as impaired for TDS and Turbidity (EPA-Category 5). To date no TMDLs have been completed for the TDS or Turbidity impairments in this waterbody. A reopener clause will be established in the permit to allow for the requirement of more stringent effluent limitations and requirements as imposed by a future TMDL. Until completion of TMDLs for the Barataria Basin, those suspected causes for impairment which are not directly attributed to the alligator farming industry have been eliminated in the formulation of effluent limitations of this permit. Additionally, suspected causes of impairment which could be attributed to pollutants which were not determined to be discharged at a level which would cause, have the reasonable potential to cause or contribute to an excursion above any present state water quality standard were also eliminated. This permit contains TSS limits to control the discharge of suspended solids to the receiving waterbody. TDS report limits are included to provide data for future TMDL development.

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Subsegment 020301, Bayou Des Allemands - HWY 90 to Lake Salvador (Scenic), was previously listed as impaired for organic enrichment/low DO, Nitrate/Nitrite, and Phosphorus for which the below TMDLs have been developed. The Department of Environmental Quality reserves the right to impose more stringent discharge limitations and/or additional restrictions in the future to maintain the water quality integrity and the designated uses of the receiving water bodies based upon additional TMDLs and/or water quality studies. The DEQ also reserves the right to modify or revoke and reissue this permit based upon any changes to established TMDLs for this discharge, or to accommodate for pollutant trading provisions in approved TMDL watersheds as necessary to achieve compliance with water quality standards.

The following TMDLs have been established for subsegment 020301:

BAYOU DES ALLEMANDS WATERSHED TMDL FOR BIOCHEMICAL OXYGEN-DEMANDING SUBSTANCES was final on July 30, 2004. A total of five NPDES permits were identified for point source discharges within subsegment 020301. Because none of these facilities discharged directly into Bayou des Allemands, they were not included in the model. This subsegment was listed as impaired due to nutrients as well as organic enrichment/low DO. This TMDL establishes load limitations for oxygen-demanding substances and goals for reduction of those pollutants. LDEQ's position, as supported by the ruling in the lawsuit regarding water quality criteria for nutrients (Sierra Club v. Givens, 710 So.2d 249 (La. App. 1st Cir. 1997), writ denied, 705 So.2d 1106 (La. 1998), is that when oxygen-demanding substances are controlled and limited in order to ensure that the dissolved oxygen criterion is supported, nutrients are also controlled and limited. LAC 33:IX.2707.C.f.iii allows the establishment of effluent limitations based on an indicator parameter for the pollutant of concern. LDEQ's consistent approach to controlling nutrients where the WQMP does not otherwise require specific nutrient limitations is achieved by limiting the discharge of oxygen-demanding substances through a BOD<sub>5</sub> limitation. Compliance with the CBOD<sub>5</sub> limitation as the indicator parameter will result in the control of nutrients from the discharge sufficient to attain and maintain the applicable water quality standard. Effluent monitoring of the indicator parameter as conducted by the permittee in accordance with the effluent limitations of the permit in addition to LDEQ's ambient water quality monitoring program will allow for further evaluation by the Department to determine the effectiveness of the limitation. The reopener clause located in the Other Conditions of the final permit allows the Department to modify or revoke and reissue the permit if the limitations as set on the indicator parameter are shown to no longer attain and maintain applicable water quality standards. CBOD<sub>5</sub> and NH<sub>3</sub>-N limits are included in this permit to control dissolved oxygen demand in the discharge.

**6. PROPOSED EFFLUENT LIMITS**

BASIS - See Rationale below.

**7. COMPLIANCE HISTORY/COMMENTS**

- A. OEC – There are no open, pending, or appealed compliance orders on file as of April 25, 2008. There are no inspections on file as of April 25, 2008.
- B. DMR Review/Excursions – There are no DMRs on file as of April 25, 2008. This is an initial permit.

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## **8. ENDANGERED SPECIES**

The receiving waterbody, Subsegment 020301 of the Barataria Basin is not listed in Section II.2 of the Implementation Strategy as requiring consultation with the U.S. Fish and Wildlife Service (FWS). This strategy was submitted with a letter dated October 24, 2007 from Boggs (FWS) to Brown (LDEQ). Therefore, in accordance with the Memorandum of Understanding between the LDEQ and the FWS, no further informal (Section 7, Endangered Species Act) consultation is required. The effluent limitations established in the permit ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat. Therefore, the issuance of the LPDES permit is not likely to have an adverse effect on any endangered or candidate species or the critical habitat.

## **9. HISTORIC SITES**

The discharge is from an existing facility location, which does not include an expansion on undisturbed soils. Therefore, there should be no potential effect to sites or properties on or eligible for listing on the National Register of Historic Places, and in accordance with the "Memorandum of Understanding for the Protection of Historic Properties in Louisiana Regarding LPDES Permits" no consultation with the Louisiana State Historic Preservation Officer is required.

## **11. TENTATIVE DETERMINATION**

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to issue a permit for the discharge described in the application.

## **12. PUBLIC NOTICES**

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the statement of basis. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

Public notice published in:

Local newspaper of general circulation

Office of Environmental Services Public Notice Mailing List

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### Rationale for Utopia, Inc./Utopia Gator Farm

1. **Outfall 001** - alligator house washwater, alligator processing wastewater, sanitary wastewater, and stormwater (estimated flow is 500 GPD)

Pollutant	Discharge Limitations		Reference
	Monthly Avg (lb/d)	Daily Max (lb/d)	
Flow (GPD)	Report	Report	LAC 33:IX.2707.1.1.b
CBOD <sub>5</sub>	13.6	22.2	See below
TSS	46.8	71.2	See below
Fecal Coliform colonies/100 ml	200	400	See below
Ammonia –Nitrogen	11.6	18.1	See below
Oil & Grease	0.5	1.1	See below
TDS	Report	Report	2006 303(d) List
pH	6.0 s.u. minimum	9.0 s.u. maximum	See below

**Treatment:** oxidation pond

**Monitoring Frequency:** Quarterly for all parameters (BPJ; similar permits)

#### Limits Justification:

40 CFR 451 does not apply to alligator farming operations.

Flow: Flow reporting is required by LAC 33:IX.2707.1.1.b.

CBOD<sub>5</sub>, TSS: Limits are based on secondary treatment standards in LAC 33:IX.5905, BPJ, and similar, permitted facilities. Processing wastewater is addressed by 40 CFR 432.15. See below calculations for guideline limits and alligator farm wastewater. Sanitary wastewater is estimated at only 100 GPD and therefore was not given a separate loading.

Fecal Coliform, pH: Limits are based on 40 CFR 432.15 (fecal) and 40 CFR 432.3 (pH), numerical criteria specified in LAC 33:IX.1113.C, BPJ, and similar, permitted facilities. The discharge from this facility is into a water body which has a designated use of Primary Contact Recreation and Secondary Contact Recreation. According to LAC 33:IX.1113.C.5, the fecal coliform standards for this water body are 200 colonies/100 ml and 400 colonies/100 ml. Existing facilities have demonstrated an ability to comply with these limitations using presently available technology.

Oil & Grease, Ammonia-Nitrogen: Limits are based on similar, permitted facilities through BPJ and 40 CFR 432.15. See below calculations for guideline limits and alligator farm wastewater. Ammonia has been included to prevent ammonia toxicity in the receiving stream. Note that there is no oil and grease loading for alligator house washwater. Oil and grease is not expected to be a component of house washwater.

TDS: A TDS reporting requirement is included based on the TDS impairment in LDEQ's Final 2006 303(d) list for Subsegment 020301. This will provide data for future TMDL development.

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**Conversion of Standard Alligator Farm Limits to Mass (for alligator house washwater loading)**

This conversion is based on a flow of 0.06 MGD discharged from the houses to the oxidation pond.

CBOD<sub>5</sub>

Monthly Average = (25 mg/l)(0.06 MGD)(8.34) = 12.51 lb/day

Daily Maximum = (40mg/l)(0.06 MGD)(8.34) = 20.02 lb/day

TSS

Monthly Average = (90 mg/l)(0.06 MGD)(8.34) = 45.04 lb/day

Daily Maximum = (135 mg/l)(0.06 MGD)(8.34) = 67.55 lb/day

NH<sub>3</sub>-N

Monthly Average = (20mg/l)(0.06 MGD)(8.34) = 10.08 lb/day

Daily Maximum = (30 mg/l)(0.06 MGD)(8.34) = 15.01 lb/day

**Meat Processing Limitation Calculations: 40 CFR 432.15**

In the Technical Development Document for the revisions to The Meat and Poultry Products Effluent Limitation Guidelines (ELGs), meat is defined as all animal products from cattle, calves, hogs, sheep and lambs, and from any animal that is not listed under the definition of poultry.<sup>(\*)</sup> Additionally, EPA defines “animal slaughtering” facilities as meat first processing facilities that slaughter cattle, hogs, sheep, lambs, calves, horses, goats, and exotic livestock.<sup>(\*)</sup> Therefore, the ELGs presented in 40 CFR 432 apply to this alligator processing facility. Furthermore, EPA defines “Meat Further Processors” (ie. packinghouses) as facilities engaged in processing or preserving meat and meat by products from purchased meats, and that do not slaughter animals or perform any initial processing (e.g. defleshing, defeathering).<sup>(\*)</sup> Due to the fact that this facility skins and debones alligators at this location, the facility is not classified as a packinghouse. This facility is classified as a simple slaughter house and is subject to 40 CFR 432.15.

These guidelines were revised on September 8, 2004. The preamble states that EPA did not revise the current effluent limitations guidelines or new source performance standards for meat first or further processors beneath the new production threshold of 50 million pounds per year. For facilities beneath this production threshold, the existing regulations, published February 28, 1974, continue to apply.<sup>(\*)</sup> This facility is classified as a New Source.

The following limitations have been calculated (as shown below), based on the ELGs found at 40 CFR 432.15(a)(1).

CBOD<sub>5</sub> Calculations

Daily Maximum (0.24 lb BOD/1000 lb ELWK)(9000 lb ELWK/d) = 2.16 lb/d

Monthly Average (0.12 lb BOD/1000 lb ELWK)(9000 lb ELWK/d) = 1.08 lb/d

NOTE: BOD<sub>5</sub> has been changed to CBOD<sub>5</sub> to account for NH<sub>3</sub>-N interference. This is standard LDEQ procedure for outfalls with oxygen demand limitations where ammonia is expected to be present. Nitrifying bacteria in the discharge use oxygen to oxidize ammonia to more stable nitrates/nitrites, resulting in an overestimate of the true biological oxygen demand. In CBOD (carbonaceous oxygen demand), the impact of nitrifying organisms is reduced by the addition of a nitrification inhibitor to the samples.

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TSS Calculations

Daily Maximum  $(0.40 \text{ lb BOD}/1000 \text{ lb ELWK})(9000 \text{ lb ELWK}/\text{d}) = 3.60 \text{ lb}/\text{d}$   
 Monthly Average  $(0.20 \text{ lb BOD}/1000 \text{ lb ELWK})(9000 \text{ lb ELWK}/\text{d}) = 1.80 \text{ lb}/\text{d}$

Oil and Grease Calculations

Daily Maximum  $(0.12 \text{ lb BOD}/1000 \text{ lb ELWK})(9000 \text{ lb ELWK}/\text{d}) = 1.08 \text{ lb}/\text{d}$   
 Monthly Average  $(0.06 \text{ lb BOD}/1000 \text{ lb ELWK})(9000 \text{ lb ELWK}/\text{d}) = 0.54 \text{ lb}/\text{d}$

NH<sub>3</sub>-N

Daily Maximum  $(0.34 \text{ lb BOD}/1000 \text{ lb ELWK})(9000 \text{ lb ELWK}/\text{d}) = 3.06 \text{ lb}/\text{d}$   
 Monthly Average  $(0.17 \text{ lb BOD}/1000 \text{ lb ELWK})(9000 \text{ lb ELWK}/\text{d}) = 1.53 \text{ lb}/\text{d}$

**Summation of BOD<sub>5</sub>, TSS, and NH<sub>3</sub>-N Mass Limits for Outfall 001**

Since this outfall discharges commingled sanitary and process wastewater, the loadings for each wastewater type have been summed. The sanitary wastewater and process wastewater are routed through the same treatment plant. Sampling prior to commingling of treated wastewaters is not possible.

CBOD<sub>5</sub>

Monthly Average =  $12.51 + 1.08 = 13.6 \text{ lb}/\text{day}$   
 Daily Maximum =  $20.02 + 2.16 = 22.2 \text{ lb}/\text{day}$

TSS

Monthly Average =  $45.04 + 1.8 = 46.8 \text{ lb}/\text{day}$   
 Daily Maximum =  $67.55 + 3.6 = 71.2 \text{ lb}/\text{day}$

NH<sub>3</sub>-N

Monthly Average =  $10.08 + 1.53 = 11.6 \text{ lb}/\text{day}$   
 Daily Maximum =  $15.01 + 3.06 = 18.1 \text{ lb}/\text{day}$

- (\*1) Technical Development Document for the Final Effluent Limitations Guidelines and Standards for the Meat and Poultry Products Point Source Category (40 CFR 432), Volume 1, July 2004, Page 2-10
- (\*2) Technical Development Document for the Final Effluent Limitations Guidelines and Standards for the Meat and Poultry Products Point Source Category (40 CFR 432), Volume 1, July 2004, Page 4-2
- (\*3) Technical Development Document for the Final Effluent Limitations Guidelines and Standards for the Meat and Poultry Products Point Source Category (40 CFR 432), Volume 1, July 2004, Page 4-3

BPJ Best Professional Judgement  
 su Standard Units  
 GPD Gallons per Day  
 ELWK Equivalent Live Weight Killed

**STORM WATER POLLUTION PREVENTION PLAN (SWP3) REQUIREMENT**

A SWP3 is included in the permit because in accordance with LAC 33:IX.2511.A.1, storm water discharges shall not be required to obtain an LPDES permit "... except... discharges associated with industrial activity." In accordance with LAC 33:IX.2511.B.14.a-k, facilities classified as SIC code 2011 are considered to have storm water discharges associated with industrial activity.

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The SWP3 shall be prepared, implemented, and maintained within (6) months of the effective date of the final permit. The plan should identify potential sources of storm water pollution and ensure the implementation of practices to prevent and reduce pollutants in the storm water discharges associated with industrial activity at the facility (see Narrative Requirements for the AI).